Educational applications of the expectancy-value model of achievement motivation

in the diverse cultural contexts of the west and the east

SETSUKO OTSUKE, THE UNIVERSITY OF SYDNEY
IAN DAVID SMITH, THE UNIVERSITY OF SYDNEY

According to the expectancy-value model of achievement motivation, individuals' ability-related beliefs are the most crucial factors to predict their participation in educational choices and intentions. However, individuals' beliefs about ability are culturally different. For Westerners, an entity view of ability is positively correlated with their achievement motivation. They generally attribute their success to ability, whereas for East-Asians, an incremental view of ability is significantly correlated with their achievement scores. They believe that achievement through effort and hard work is more highly valued than achievement through ability. Hence, the most important predictor of their course selection and academic achievement is their beliefs in effort, hard work and persistence. Therefore, the expectancy-value theory, which was developed from a Western perspective, is limited when explaining the motivation of students from East-Asian societies.

INTRODUCTION

Individuals generally try to achieve in a given situation (Austin & Vancouver, 1996). One of the most influential contexts in which individuals develop their own beliefs and values is their culture (see Keesing, 1981). Cultural beliefs and values are normally internalised through their socialisation process (Gabrenya, Wang & Latane, 1985). For this reason, we would argue that individuals' beliefs and values are the basis for the different interpretations placed on achievement in different cultures (Maehr, 1984). If this is the case, it is necessary to study how beliefs (e.g., beliefs about ability and effort) relate to
individuals’ performances and achievements from a cross-cultural perspective. The purpose of this paper is to discuss the most influential predictors of individuals’ educational choices and intentions within the expectancy-value model of achievement motivation (see Wigfield & Eccles, 2000). We compare and contrast these choices and intentions in Western societies, especially in English-speaking countries like the USA, Great Britain, Canada, Australia and New Zealand, and East-Asian societies such as Japan, China, South Korea, Hong Kong, Taiwan and Singapore.

First, we briefly describe the expectancy-value model of achievement motivation that has been revised and developed chiefly by Eccles and her colleagues in the early 1980s. Her theory extends earlier theories of Atkinson and his colleagues (1966, 1974). Then, we outline our critique about the generalisability of this model, reviewing recent research to justify our position.

EXPECTANCY-VALUE MODEL OF ACHIEVEMENT MOTIVATION

Achievement motivation theorists like Pintrich and Schunk (1996) have attempted to explain how motivation influences choice, persistence and performance. One long-standing perspective on motivation is the so-called expectancy-value theory (see Wigfield & Eccles, 2000). Theorists in this tradition have argued that individuals’ choice of achievement tasks, and their persistence and performance on those tasks, may be explained by their beliefs about how well they will do on the activity and the extent to which they value the activity. Individuals’ ability beliefs predict their performance in different achievement domains. Individuals’ positive self-concept about given tasks and high self-efficacy about them are positively correlated with their level of achievement (Chye, Walker & Smith, 1997). Self-concept and self-efficacy are positively related to beliefs about students’ ability to perform well in given tasks (Wigfield & Eccles, 2000). Ability-related beliefs influence expectancies for success and task values, such as ‘importance’ as attainment value, ‘usefulness’ as utility value, ‘interest’ value and ‘enjoyment’ as intrinsic value (Wigfield & Eccles, 1992; Wigfield, 1994). Individuals’ goals influence task values, and task values influence individuals’ own motivation and behaviour like effort, persistence, self-schemata, as well as attitudes towards learning and achievement. They eventually influence individuals’ actual performance (i.e., their level of achievement). For example, if a person would like to teach Mathematics in the future, s/he would find the subject particularly important and useful for her/his career. So, s/he might be motivated to expend more effort to tackle the subject persistently, and her/his diligent behaviour would eventually produce a certain outcome.

Therefore, ‘individuals’ expectancies and values are assumed to have the most direct effects on their performance, persistence, and choice of achievement tasks’ (Wigfield, 1993, p. 104). Ability beliefs are especially important factors, according to this model, because they are the strongest factors to influence, not only expectancies and values, but also subsequent grades in achievement domains. Ability-related beliefs interacting with task values predict those outcomes more strongly than previous grades (see Wigfield & Eccles, 2000). That is, ability-related beliefs lead individuals to make their educational choices and intentions about their future.
EXPECTANCY-VALUE MODEL OF ACHIEVEMENT MOTIVATION

EXTERNAL FACTORS (EXTERNAL LOCUS OF CONTROL)

CULTURAL VALUES/BELIEFS

<table>
<thead>
<tr>
<th>Value of Education</th>
<th>Learning Strategies</th>
<th>Socialisation Influences</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Academic Discipline&quot;</td>
<td></td>
<td>Social Support (from Teachers, Parents &amp; Peers, etc.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Social Interests</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Social Expectations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Social Pressure &amp; Social Conformity</td>
</tr>
</tbody>
</table>

INTERNAL FACTORS (INTERNAL LOCUS OF CONTROL)

Self-concept/Self-efficacy

Ability-related Beliefs

Expectancies for Success

Task Values

"Importance" as Attainment Value
"Usefulness" as Utility Value
"Interest" Value
"Enjoyment" as Intrinsic Value

Actual Performance
Level of Achievement

Individuals' Goals
Expectations

Individuals' Motivation/Behaviour

Effort
Persistence
Self-Schemata
Attitudes

Participation
Educational Choices/Intentions

All the factors described above are developed through an individual’s internal locus of control, according to the expectancy-value model (see Figure 1: Expectancy-Value Model of Achievement Motivation). An internal locus of control means that individuals think that they control their performance outcomes, both successes and failures (Rotter, 1966). On the other hand, individuals’ control beliefs are sourced not only internally but also externally. According to Rotter (1966), an external locus of control means that individuals perceive that external factors in their environment exert the control over the individual’s successes and failures. Learning environments, which are culturally dependent, influence individuals’ achievement and motivation (Juvonen & Wentzel, 1996). External factors in these learning environments include: (1) the value of education, especially what we would call, ‘academic discipline’; (2) socialisation influences such as social support (from teachers, parents, siblings and peers), social interests, social expectations, social pressure and social conformity; and (3) learning strategies, imposed by parents and teachers.

Consequently, the expectancy-value model of achievement motivation comprises a complex chain of factors which predict individuals’ subject(s)/course(s) selection (see Figure 1). However, not only external factors but also internal factors are culturally dependent to some degree and, therefore, are culturally influenced (Salili, 1995; Wentzel & Wigfield, 1998). We argue that there are strong cultural influences over the most prominent predictors within the expectancy-value model of achievement motivation, such as ability beliefs, self-concept and self-efficacy, since people’s valuation of education, socialisation processes and practices, learning strategies, and meaning of achievement are all different from culture to culture (Triandis, 1989; Markus & Kitayama, 1991; Trafimow, Triandis & Goto, 1991; Salili, 1995; Earley, Gibson & Chen, 1999). Culture may play a more important role in values than conceptions of ability (Wigfield, Tonks & Eccles, 2004). Before discussing cultural influences on students’ self-concept, leading to an examination of Western cultural beliefs in ability in relation to achievement motivation, the following section briefly clarifies our stance on ‘cultural generalisations’, in order to highlight our main argument in this paper.

CULTURAL GENERALISATIONS & INDIVIDUAL DIFFERENCES

Much that is written about cross-cultural psychology deals in broad generalisations about cultures. For instance, it is commonly observed that East-Asian cultures generally stress that achievement motivation is to seek co-operative success, rather than individual success, which Western cultures generally stress (Biggs, 2001; Salili, Chiu & Lai, 2001). These widely recognised ‘cultural generalisations’ about achievement motivation may become ‘cultural stereotypes’ if they are used too rigidly as principles without exceptions. Within every culture, differences exist between individuals. Bandura (2002, pp. 269-270) has been critical of what he calls ‘contentious dualisms’ in cross-cultural psychology, arguing that ‘intra-cultural diversity and intra-individual variation in psychosocial orientations across spheres of functioning underscore the multifaceted dynamic nature of cultures’.
However, despite Bandura’s (2002) objections, ‘cultural generalisations’ are of great significance for an individual’s adaptation to her/his environment. If every situation in which an individual tries to achieve differs, it may become confusing in terms of predicting her/his likely performance in a given achievement task. According to Triandis (1995a, p. 5), ‘people who have been raised in collective cultures tend to ‘cognitively convert’ situations into collective settings; people who have been raised in individualistic cultures tend to convert situations into individualistic settings’. Every individual, more or less, tries to gain her/his achievement in a given cultural perspective. Culture may expect every member of that particular society to follow in its cultural norms and values in order to achieve the culturally appropriate way. Consequently, expectations are culturally based. Jackson (1964, p. 225) has stated that ‘people who interact develop expectations about each other’s behaviour, not only in the sense that they are able to predict the regularities, but also in the sense that they develop preferences about how others should behave under certain circumstances.’ This tendency brings predictability to our lives.

Thus, in the present paper, we refer to the importance of cultural differences rather than intra-cultural and intra-individual diversity. Here, the idea of cultural ‘false friends’ should be taken into consideration. According to Breen (1989, p. 188), ‘an Englishman and an American will normally expect a Japanese to be culturally foreign and will welcome any sign of common ground. They will normally expect an Australian to be ‘just like us’ because of shared language and traditions’. In this regard, differences and similarities certainly exist across cultures. Individual differences are also admitted by a particular society to some degree, because they are culturally produced and shaped (Otsuka, 1996). Regardless of intra-individual and inter-individual variation within a culture, people are generally expected to achieve in a culturally specific way. Hence, her/his achievement is socially recognised. Therefore, individual differences and similarities are a matter of degree within a culture and across-cultures. It is reasonable to rely on ‘cultural generalisations’ and ‘cultural stereotypes’, to a certain extent. These ‘cultural phenomena’ assist our attempt in clearly comparing and contrasting the most prominent factors of individuals’ educational choices and intentions within the expectancy-value model of achievement motivation from a cross-cultural perspective.

**CULTURAL INFLUENCES ON SELF-CONCEPT**

Self-concept is generally regarded as a major influence on one’s thought and action. It is defined by Pajares and Schunk (2001, p. 243) as ‘consisting of beliefs, hypotheses and assumptions that an individual has about her/himself. It is the person’s view of her/himself as conceived and organised from her/his inner vantage and includes the person’s ideas of the kind of person s/he is’. An individual’s self-concept develops into a relatively stable characteristic (Shavelson, Hubner & Stanton, 1976), whereas self-efficacy beliefs are more situation specific (Bandura, 1997; Zimmerman, 2000). However, the differences between these two constructs are beginning to blur, with recent attempts
to measure general self-efficacy (Bong & Clark, 1999). Self-concept consists of a person’s self-perceptions that are formed and shaped through socialisation experiences with, and interpretations of, one’s cultural environment (Shavelson, Hubner & Stanton, 1976; Markus & Kitayama, 1991; Triandis, 1995b). According to Mead (1934) and Johnson (1985), the self arises from a reflective process through ‘symbolic interaction’ (e.g., language) with social groups and other individuals, especially the parents who communicate with their child from a very early stage of her/his life. Such interaction is ‘an effective means of transmitting the beliefs, attitudes and values which lead to the social control of individuals’ behaviour’ (Smith, 1992, p. 149).

A child receives much information and feedback from her/his parents. In other words, s/he seeks out information about her/his actions, consciously and unconsciously, to structure and interpret her/his world (Earley, Gibson & Chen, 1999). Information sought by the child is tied to her/his self-concept, which in turn is tied to cultural values and beliefs such as ability-effort (Erez & Earley, 1993). Thus, one’s self-concept is a ‘cultural product’. It is accessed differently depending on one’s cultural background (Trafimow, Triandis & Goto, 1991). Thus, ‘a person’s self-concept can be derived from different referents of information based on cultural background’ (Earley, Gibson & Chen, 1999, p. 596). It generally develops through parents’ child-rearing practices. ‘Child-rearing patterns correspond to the dominant syndromes of a society’ (Triandis, 1995b, p. 11), and one’s self-concept can be a ‘looking-glass’ reflection of how one believes significant others perceive that person (Marsh, 1984). An issue that has been intensively researched over the past 20 years is the type of information that children receive from their parents in order to form their ability self-concept, which is reviewed in the next section.

**SELF-CONCEPT ABOUT ABILITY**

Greenwald and Pratkanis (1984) maintained that the individuals who were brought up in individualistic cultures, such as English speaking countries, tend to develop a ‘private self’, whereas, those who were raised in collective cultures like East-Asian societies have a tendency to develop a ‘collective self’. Australians have some private and some collective self-cognitions. Nevertheless, their private cognitions are more salient (Feather & McKee, 1993; Bochner, 1994). Triandis (1989) and Trafimow, Triandis & Goto (1991) have argued that one’s cultural background influences the accessibility of the private and collective self-concepts.

According to Morris (1956) and Triandis (1989), child-rearing patterns among private selves tend to emphasise ‘independence’, ‘finding self’, ‘self-autonomy’, ‘self-determination’ (see Deci & Ryan, 1985) and ‘self-actualisation’ (Maslow, 1970). ‘At this highest level, each individual abandons earlier reliance on others’ (Weisz, Rothbaum & Blackburn, 1984, p. 959). Children are expected by their parents to mature in the direction of an ideal state in which individuals rely on principles that they have personally constructed for themselves (Kohlberg, 1969). For example, in the British upper middle
class, children as young as six years of age are often sent away to boarding school to learn how to ‘stand on their own feet’ and to become self-reliant (see Morsbach, 1980). Hence, a person who does not outgrow her/his dependence on the family is usually considered ‘babbysh’ and ‘immature’.

In cultural environments where individuals seek to express their internal attributes in order to establish their uniqueness, they are socialised to be obedient and to develop a progressive independence. The Australian culture, for instance, fosters an emphasis on autonomy (Feather & McKee, 1993). ‘When self is constructed as independent, behaviour is organised and made meaningful primarily by reference to one’s internal repertoire of thoughts, feelings and actions’ (Markus & Kitayama, 1991, p. 226). Individuals will be ‘self-focused’, favouring individual pursuits. They will focus on internal processes, and think of themselves as especially ‘able’ (see Triandis, 1995b). Therefore, ‘high self-concept of ability subjects would anticipate greater pride or pleasure over success and thus be more motivated when a task is presented in a fashion which emphasises the implications of performance for future performance and, thus, the importance of demonstrating ability’ (Nicholls, 1976, pp. 313-314).

In addition, the belief in individualism has consistently espoused the rights of personal freedom and enhancement, and this attitude is preoccupied with anti-authoritarianism and commitment to the defence of individual choice (Johnson, 1985). A person’s sense of identity is deeply intertwined with her/his individual choice. Thus, for ‘private selves’, ‘making a choice provides an opportunity to display one’s preferences and, consequently, to express one’s internal attributes, to assert one’s autonomy, and to fulfil the goal of being unique’ (Iyengar & Lepper, 1999, p. 350). Australians emphasise the importance of individual decisions and individual choices (Janis & Mann, 1997), because individualistic Australian culture tends to emphasise personal interests over collective interests (Mann, Mitsui & Beswick, 1994). Accordingly, ‘private selves’ heavily emphasise and highly value ‘primary control’, and develop their beliefs through a form of internal locus of control. That is, attribute the causes of their successes and failures as internal, more frequently than collectivists who favour external causes such as luck, fate and ‘karma’ (Triandis, 1995a).

WESTERN BELIEFS IN ABILITY

In the West, it is often said that ability to achieve is an important human value, so that self-perception of competence is a manifestation of self-worth in the educational context (e.g., Holloway, 1988; Salili, 1995). ‘Self-worth is the individual’s evaluative appraisal of her/himself. In the broadest sense it is more or less synonymous with such concepts as self-esteem, self-respect, and personal acceptance’ (Covington & Beery, 1976, p. 5). Generally speaking, high achieving students, for example, tend to attribute successful performance to ability. They rarely blame failure on lack of ability (Greene, 1985), because for them, attributing failure to lack of ability is often defined as a helpless response, such as negative affect and decreased performance (Kamins & Dweck, 1999). In the face of
failure, they often attribute this to a lack of effort, in order to avoid a threat to their self-worth and strong beliefs in their own ability. In particular, many English speaking people tend to believe that the higher the ability they have, the less effort is required to succeed in a task (Barker & Graham, 1987; Nicholls, 1989). Therefore, ability attributions appear to be the most important determinants of achievement-related affect, and expectancies for future performance and choice (see e.g., Nicholls, 1976; Weiner, Nierenberg & Goldstein, 1976; Kukla, 1978). Among English speaking people, ability is considered a source of high achievement, and effort simply emerges as a bridge between ability and conduct (Blumenfeld, Pintrich & Hamilton, 1986). Hence, even though effort and hard work are praised, being a ‘success’ or a ‘winner’ is more important in Western cultural values (Spence, 1985). North American culture, in particular, has a stronger emphasis on the importance of rewarding ‘success’ than other English speaking background nations, like Great Britain and Australia (Feather, 1998). The individualistic and competitive conception of achievement in the West emphasises the importance of fixed ability, which is not so controllable in the short term (Sali, 1995). Individualists tend to conceive that goals are closer in time than collectivists (Triandis, 1990). Accordingly, Western students from 10 or 11 years of age onwards typically focus on ability rather than effort in achievement tasks (Stipek & McIver, 1989).

Theoretically speaking, an ‘entity theory’ tends to appear in the Western conceptions of ability. Individual who make use of this theory tend to view ability as an attribute they possess that is relatively global and stable, that can be judged as adequate, and that is both limited and limiting (see Weiner, 1986). According to Dweck and Bempechat (1983), an entity theory involves the belief that ability is a rather stable and global trait that is displayed through performance. The outcomes or judgments indicate whether individuals are ‘intelligent’ or not.

On the other hand, ‘incremental’ theorists argue that ability-related beliefs consist of ‘an ever-expanding repertoire of skills and knowledge that is increased through one’s own instrumental behaviour’ (Dweck & Bempechat, 1983, p. 244). Although the theorists realise that individuals may differ in the rate at which they acquire skills, they focus on the idea that anyone can become smarter, more skillful, more knowledgeable and more capable by investing effort (Dweck & Bempechat, 1983). Ability can be increased by one’s own actions (i.e., hard work, effort and persistence). While entity theorists also realise that virtually everyone can increase their skills or knowledge, they do not believe that people can become smarter. The following section discusses self-concept about effort, by examining East-Asian cultural beliefs about effort, which are closely related to an incremental theory of ability.

**SELF-CONCEPT ABOUT EFFORT**

Adults in collective societies have a strong tendency to encourage children to be dependent on significant and trusted others. Japanese children, for instance, are expected by their parents to behave like a ‘spoilt child’. Many parents are pleased if their children
depend upon others’ love and bask in others’ kindness (see Doi, 1973). A child’s dependency on her/his parents is later transferred to her/his marriage and her/his seniors at school and work, and her/his strong family ties persist into adult life (Morsbach, 1980). The acknowledgment of interdependencies in social aspects of one’s life, such as family, work and friendship relations, is highly conscious and essential to successful social navigation in Japanese life (Doi, 1973). Accordingly, young people, even at twenty years of age, often tend to seek out their seniors and elders, and have respect for them. Some may say; ‘I am still a child!’ or ‘I have not grown yet!’ They ask for emotional, moral and even financial support and help, as well as advice and guidance from their seniors and elders (Stewart, 1985). That is, Japanese are generally far more willing to admit they are dependent. One of the reasons why many Japanese people have a strong sense of leaning very much on others probably derives from the hierarchical nature of their society. Japanese personal relationships are based on hierarchy, where participants’ age, gender and social position are crucial to structure a finely graded senior-junior (i.e., superiority-inferiority) system (e.g., Reischauer, 1992). In such a culture, members of the society inevitably tend to experience pressure whenever they try to undertake things and maintain harmony. People’s strong sense of dependency is probably an important factor to relieve themselves from such pressure, which often originates from the hierarchical structure (Caudill, 1970).

In addition, East-Asian people are often considered to be deeply rooted in Chinese culture. Chinese cultures are largely derived from Confucian-heritage culture (Biggs & Watkins, 1996; Biggs, 2001). ‘Confucianism has made an indelible mark on the governments, societies, educational practices, and family life of East-Asia’ (Tu, 1990, p. 112). East-Asians’ valuation of education is still greatly influenced by Confucian philosophy of learning, despite the fact that his ideas of learning were introduced over 2,500 years ago (Tu, 1990). Confucianism undermines the autonomy of the individual self. For example, Japanese tradition has belittled the individual (Reischauer, 1992). Instead, Confucianism has traditionally valued the importance of the spirit of filial piety, brotherhood, friendship, discipleship and loyalty, which are all integral parts of people’s spiritual development (Tu, 1985). Thus, children try to satisfy their parents and respect their elders (Hsu, 1981). ‘A salient feature of the father-child relationship is the unquestioned obedience of the son to the authority of the father’ (Tu, 1985, p. 234), because Confucianism is the product of a patriarchal and strong male-dominated society such as China (Reischauer, 1992). Hence ‘Confucian-children’ evoke images of dependency, conformity and indecision; they have little choice both vocationally and educationally. Children prefer to have choices made for them by significant others, such as parents. It has been found that there is a positive correlation between self-esteem of a decision maker and the use of the adaptive choice decision response style (e.g., in relying on the views of others) (Radford, Mann, Ohta & Nakane, 1993). That is, East-Asians involve others in their self-cultivation and self-realisation. This is considered not only altruistic in Confucianism, but is also required for their own self-development (Tu, 1985).
Moreover, Confucianism has always respected and valued education. Confucius believed that a good education changes people for the better, maintaining that 'the only way for the superior man to civilise the people and establish good customs is through education' (Yutang, 1958, p. 200). Thus, 'Confucian-parents' believe that helping children to do better at school is one of their most important tasks. Accordingly, achievement motivation is socially oriented, involving others in one's 'success' (Salili, 1996). Therefore, East-Asian societies demand parental involvement in their academic achievement both financially and instrumentally (Johnson, 1985; Ng, 2001). Individualistic societies, such as Australia, also recognise the importance of parental involvement in children's schooling, but do not exert the same level of pressure as an Asian present presents (e.g., Baxter, 1983; Irvine, 2000). Carpenter (1985) reported that the Australian interpersonal influence of significant others, especially of parents, teachers and friends, within children's academic achievement is one of the most important predictors. However, parents generally feel that their children’s school performance should not be the focus of their parenting, but children's social development should be of foremost concern (Chao, 1996). Also, individualistic societies rate self-satisfaction as a more important source of their achievement motivation than shared-satisfaction. On the other hand, Japanese and other Asian mothers tend to make considerable sacrifices in time and financial resources for their children's education. Smith (2003) has argued that, in most Asian countries, many parents willingly support their children's education by helping them with their homework and paying for coaching. Swain (1995) suggests that, on average, one-third of a middle class family's annual income is spent on education in Japan, with this preoccupation also being found in other socio-economic groups in that country. The cost of coaching at private educational institutions in Japan is immense, which approximately 25 per cent of primary school pupils and 60 per cent of lower secondary ones in 1993 attended each day after attending their regular schools (Ministry of Education, Science & Culture, 1995). Bray (1999) has reported that the Japanese coaching industry in the mid-1990s had annual income of US$14 billion. Bray (1999) also reported that the per capita expenditure on private tuition in Japan is approximately US$112 per annum, compared with US$76 per child in Singapore.

Students in collective societies tend to be characterised by an external locus of control, such as dependence upon social support from teachers, parents, siblings and peers (Rothbaum, Weisz, & Snyder, 1982). Through their socialisation experiences, children learn the importance of collective values such as effort to achieve their academic goal. They clearly understand that their educational progress is based, not only on their own effort, but also on the assistance afforded by others. Hence, effort is more likely to become a shared value between children, parents, siblings and teachers in achieving academic success (Covington & Omelich, 1979). Because of the benefits derived from shared resources, individual ability is not regarded as an important factor for a 'successful' decision (Lebra, 1976). Smith (2003) has further argued that in the Asian context, the student's motivation comes from extrinsic sources, such as the desire to
please teachers and parents, as well as from internal sources, such as the desire to perform as well as possible in an examination. The valued achievements in East-Asian cultures are those which result from effort directed towards social or group goals, rather than the pursuits of personal ambition (Hsu, 1985; Feather & McKee, 1993).

EAST-ASIAN BELIEFS IN EFFORT

Accordingly, the East-Asian conceptions of ability are closely related to an incremental theory of ability, which views ability as something they produce and something with great potential to be increased through their efforts. Japanese people believe that children can develop the ability to learn well. 'This view attributes achievement to effort, not to innate ability' (Shimahara, 1986, p. 22). Likewise, Chinese people put heavy emphasis on effort and tend to attribute both success and failure more to internal and controllable causes, such as effort and study skills, than to ability (Hau & Salili, 1989). To them, ability is more controllable and can be modified through effort, because they believe that ability and effort are positively correlated (Salili & Hau, 1994). In the Chinese culture, achievement through effort and hard work is more highly valued than achievement through ability. Chinese believe that one can gain knowledge and improve one's ability through hard work and effort (Salili, 1995). One of the favourite sayings among Chinese children goes: 'Genius comes from hard work and knowledge depends on accumulation!' (Tong, Zhao & Yang, 1985). Also in Japan, 'competence is defined partly as talent or genius, but partly as the capacity for hard work and persistence' (Vogel, 1963, p. 156). Lebra (1976) found that in the sentence completion task conducted by Japanese, in which subjects were given the sentence stem 's/he has achieved success, because....', approximately 72% of the respondents mentioned effort, whereas only 1% mentioned ability. Another study (Chen & Stevenson, 1995) suggests that the various cultural groups - European Americans, Beijing Chinese, Taipei Chinese and Sendai Japanese - differed greatly in their beliefs about the role of ability and effort in academic achievement. Only 23% European Americans valued effort. On the other hand, all the East-Asia groups chose effort more frequently (57%, 59% and 72% for Chinese, Taiwanese and Japanese, respectively). Even among Asian Americans, who are influenced, more or less, by North American culture, their achievement reflects traditional cultural beliefs that effort will be rewarded with success (Sue & Okazaki, 1990). Hence, effort is equated with achievement. Therefore, effort is always considered to be the first or second most important cause of achievement outcomes for both high and low achievers. Then, we would say that East-Asians believe that how well they will do on an activity largely depends on how much they persevere in it. It is almost a buzzword among many Japanese people, especially among teachers, parents, students, company employers and employees, to say to each other, in order to motivate themselves, 'If you hang in there, you can make it!' Besides, the learning strategies typically used by Japanese students demand a great deal of persistence (Hess & Azuma, 1991). In the Confucian-philosophy of learning, repetition is highly valued in order for learners to acquire the depth of understanding of
given tasks (Biggs & Watkins, 1996). There is a common perception that instruction in the Japanese classroom, for instance, consists primarily of drill and repetition (see Hess & Azuma, 1991). East-Asian philosophy of learning asserts that repetition is a route to understanding. As a Japanese student, I remember many teachers of mine often told us about one of the most widely used proverbs among Japanese: ‘Read it one hundred times, and understanding will follow spontaneously!’ This way of learning simply requires learners to repeat the same activities over and over again. This ‘sticky-probing approach’ (Hess & Azuma, 1991) also consumes a large amount of the learners’ (and often the teachers’) time. We would argue here that some East-Asians perceive that effort means that they simply take their time to learn material or solve problems, rather than trying to work on tasks quickly. Some students maintain that the longer the time they spend on tasks, the more effort they put into them. Hess and Azuma (1991) found that Japanese children engaged in a drawing activity for an average of 80.5 seconds, whereas their North American counterparts lasted only 55.3 seconds. The Japanese students made 9.9 errors on average, while US children made 11.4. Japanese children typically take more time to complete tasks and make fewer errors than do their North American counterparts. Stipek and Maclver (1989) found that Japanese high school students continued to believe that their academic grades could be improved by increasing their effort, especially when assisted by their teachers. On the other hand, US students by age 10 or 11 had reached the conclusion that their academic performance was influenced largely by their abilities, which are relatively stable by this age. This result was confirmed by Nicholls (1979), who found that 12 year-old New Zealand students attributed their school success more to their ability than to effort. In conclusion, East-Asian students value highly their beliefs in persistence, effort, hard work and diligence in order to perform well in achievement tasks, whereas Western children’s belief in ability as the major contributor to academic success is well established by the time they reach adolescence.

LIMITATIONS OF THE EXPECTANCY-VALUE MODEL OF ACHIEVEMENT MOTIVATION

The expectancy-value model, although a well established theory of achievement motivation in Western psychology, has definite limitations when generalised to East-Asian beliefs in the role of effort, ability and persistence, as they influence self-efficacy and educational achievement. East-Asians’ strong faith in effort and persistence influences their motivational beliefs such as self-efficacy. In the West, past performance on similar tasks has been found to be the strongest predictor of an individual’s self-efficacy as s/he approaches a given achievement task (Bandura, 1997). However, Eaton & Dembo (1997) have found that Asian American students’ self-efficacy beliefs are lower than their American counterparts. Furthermore, there was a higher relationship between Asian American students’ achievement and their fear of failure, than between achievement and self-efficacy. On the other hand, the academic performance of Asian Americans, especially those of East-Asian background, is often higher than that of
English speaking background students (see for instance, Stigler, Lee, Lucker & Stevenson, 1982; Lynn, 1988). It was reported that Chinese and Japanese students had higher mathematics achievement scores than those of North American counterparts (Stevenson, Lee & Stigler, 1986).

Evidence thus suggests that East-Asians generally have a more self-critical view of their ability beliefs. Japanese people, for instance, are more critical of themselves than are North Americans. Even among mothers, the Japanese consistently give their children lower ratings of their performance than American counterparts. A comparative study conducted by Stevenson, Lee & Stigler (1986) suggests that on ratings of a child’s intellectual ability, the average rating given by Japanese mothers was 5.5, whereas the average rating given by American mothers was 6.3. A comparison of actual-ideal self-discrepancies indeed reveals larger discrepancies for Japanese than for their European counterparts (Heine & Lehman, 1999). For East-Asians, self-efficacy and the incremental view of ability are significantly correlated with achievement motivation scores. Hence, they tend to focus on learning goals, which are often moderately difficult, in order to increase their skills and abilities. Even Asian American students tend to set higher goals for themselves and evaluate their performance against more rigid criteria, motivating them to expend more effort to achieve their goals (Eaton & Dembo, 1997). They believe that the more effort they put into the work, the greater understanding of the subject they will have, and that their effort, hard work and persistence can help them to increase their ability to grasp the subject and even deal with difficult tasks.

Hence, even though East-Asian students initially believe that they are not good at a particular subject, they are still willing to choose it. Therefore, East-Asians’ strong beliefs in effort and hard work are even more important factors than ability-related beliefs in order to predict their educational choices. This finding contrasts with the typical Western student’s view that ability beliefs are the most important predictors of educational achievement. East-Asians are expected by their parents and teachers to persevere diligently on given tasks in order to reach their goals. Hence, when East-Asians choose their school or university subject(s), it is probably not necessary for them to answer ability-related belief questions like: ‘How good at this subject am I?’ Instead, ‘How well do I think I will do in this subject by the end of this year?’ may be a more important question for their educational intentions.

As described above, in the expectancy-value model of achievement motivation, there is a positive correlation between individuals’ self-efficacy, which is positively related to ability beliefs, and their level of performance (see Wigfield, 1994). According to Bandura (1989), individuals’ efficacy expectations greatly influence their activity choices and willingness to expend effort and persistence. High self-efficacy is a very powerful factor for individuals’ achievement strivings. Thus, individuals’ poor performance on the task can be improved by increasing their sense of efficacy towards it (Schunk, 1984). However, these Western concepts do not generalise to East-Asian students’ relationships between their self-efficacy belief and their level of academic performance. Therefore, this achievement motivation model has limitations when applied to students from East-Asian societies.
CONCLUSION

This paper has examined the expectancy-value model of achievement motivation from a cross-cultural perspective. Within the expectancy-value model, individuals' beliefs in ability about how well they will do on given tasks and activities are the strongest predictors of their educational choices and achievements. Individuals' self-efficacy (i.e., ability-related beliefs) is positively correlated with their level of achievement. However, this theory does not generalise to East-Asian societies, where people value effort and hard work above ability as predictors of their achievement and educational choices. Their self-efficacy is generally lower than that of people from the West, but their actual performance is often higher than that of Western students. East-Asians believe that their hard work and persistence on given tasks can overcome their lack of ability, and their high expectations greatly motivate them to expand more effort to tackle difficult tasks. Therefore, for East-Asians the most crucial predictors within the expectancy-value model are their beliefs in effort and persistence, rather than their ability-related beliefs. Cultural influences serve to moderate relationships between educational values, beliefs and outcomes. Teachers need to be aware of these cultural differences when motivating their students to perform in achievement tasks. Encouraging greater effort and persistence may be a more effective motivator for learning in East-Asian students than referring to their ability or skill in a given task.

ACKNOWLEDGMENTS

We wish to thank the following people for their support: Dr. Laurel Bornholt, Associate Professor Raymond Debus, Dr. Helen Watt and Ms. Kimie Takahashi. Many thanks go to Mr. John Payne.

REFERENCES


    Student Motivation: The Culture and Context of Learning (pp. 293-308).

    The Chinese Learner: Cultural, Psychological and Contextual Influences (pp. 269-285).
    Hong Kong: Centre for Comparative Research in Education/Camberwell,

Blumenfeld, P. C., Pintrich, P. R. & Hamilton, V. L. (1986). Children’s Concept of Ability,


    Paris: UNESCO.


Carpenter, P. G. (1985). Academic Achievement among Australian Youth

    The Rice University Studies, 56(4), 37-52.


    Achievement: Ethnic and Cross-National Differences. In M. L. Maehr & P. R. Pintrich (Eds.),
    Advances in Motivation and Achievement: Culture, Motivation and Achievement, Volume 9
    (pp. 119-151). Greenwich, Connecticut: JAI Press.

    The Role of Culture and Self-Efficacy on Strategy Use and Academic Achievement.
    Paper presented at the Annual Conference of the Australian Association for Research
    in Education, Brisbane, Australia.


Covington, M. V. & Omelich, C. L. (1979). It’s Best to be Able and Virtuous too:
    Student and Teacher Evaluative Responses to Successful Effort.
    Journal of Educational Psychology, 71(5), 688-700.


    In S. G. Paris, G. M. Olson & H. W. Stevenson (Eds.), Learning and Motivation in the Classroom
    (pp. 239-256). Hillsdale, N. J.: Lawrence Erlbaum.

    Cultural Contrasts of Performance Feedback Use and Self-Efficacy.


Tokyo: Charles E. Tuttle Co.


Psychological Monograph, 80, 1-28.

Analysis. In M. L. Maehr & P. R. Pintrich (Eds.), Advances in Motivation and Achievement:
Culture, Motivation and Achievement, Volume 9 (pp. 73-118). Greenwich, Connecticut: JAI Press.

Biggs (Eds.), The Chinese Learner: Cultural, Psychological and Contextual Influences (pp. 85-105).
Hong Kong: Centre for Comparative Research in Education/Camberwell,


Motivational Orientation and Performance. In F. Salili, C. Chiu & Y. Y. Hong (Eds.),
Student Motivation: The Culture and Context of Learning (pp. 221-247). New York:

Educational Psychologist, 19, 48-58.


St. Ives, Australia: Sydmac Academic Press.

_____ (2003). Homework and Coaching. In J. P. Keeves & R. Watanabe (Eds.),
International Handbook on Educational Research in the Asia/Pacific Region (pp. 755-766).


Psychologist, 40(12), 1285-1295.


Stewart & S. Ting-Toomey (Eds.), Communication, Culture and Organisational Processes (pp. 177-211).
Beverly Hills, California: Sage Publications.

Journal of Educational Psychology, 74(3), 315-322.


A Phenomenon in Search of an Explanation. American Psychologist, 45(8), 913-920.


Psychological Review, 96(3), 506-520.


In M. L. Maehr & P. R. Pintrich (Eds.), Advances in Motivation and Achievement, Volume 9 (pp. 1-30). Greenwich, Connecticut: JAI Press.


Journal of Personality, 44(1), 52-68.


Contemporary Educational Psychology, 25, 68-81.

